

Mixing device

Abstract

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A device comprising a shaft (1), a front ring (2), which is non-positively and positively connected to this shaft, an end ring (3), which is non-positively and positively connected to the shaft at a distance A from the front ring, and a loose mixing
10 ring (4), which is freely rotatable and located between the front ring and the end ring, wherein

the front ring and the end ring in each case have at least one channel (2k) or (3k), respectively, which runs axially parallel,
15 at an angle in relation to the axis of the shaft or helically, and has in each case at least two regions (2b₁ and 2b₂) or (3b₁ and 3b₂) of different outside diameters, of which the region with the smaller outside diameter (2b₂) or (3b₂) is respectively located on the side facing the mixing ring, and

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the mixing ring has a first region (4b₁) in which its inside diameter is large enough for it to be able to overlap with the region of smaller diameter of the front ring (2b₂), has an adjoining region (4b₂) in which the mixing ring has on its inner
25 side at least one channel (4k) which runs axially parallel, at an angle in relation to the axis of the shaft or helically thereto, and also an adjoining third region (4b₃), in which its inside diameter is large enough for it to be able to overlap with the region of smaller diameter of the end ring (3b₂) and the mixing
30 ring is so long that, in its respective end positions, the other of the two rings (2) or (3) respectively is partially overlapped by the mixing ring.

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